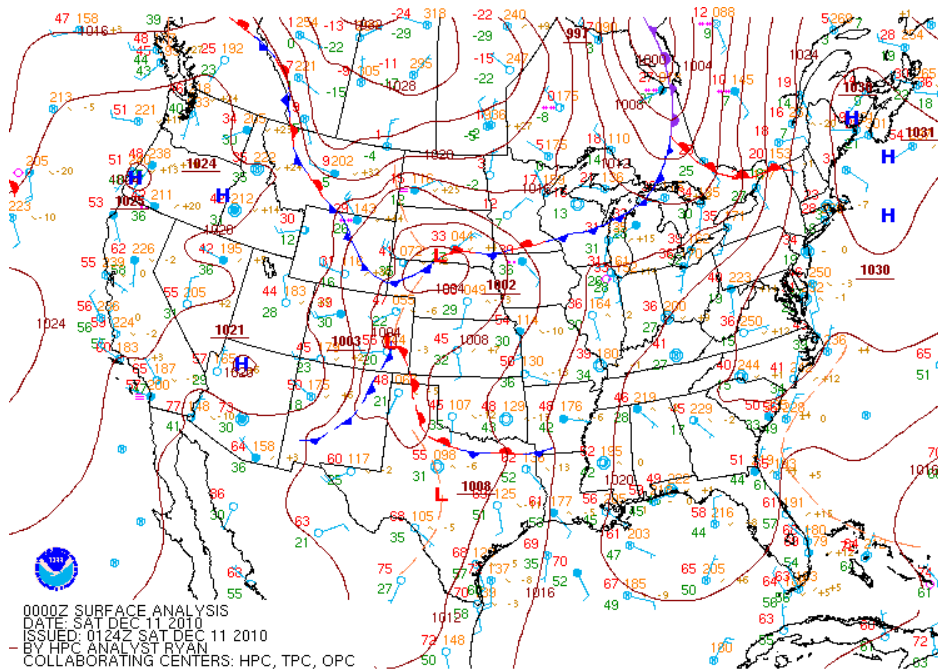


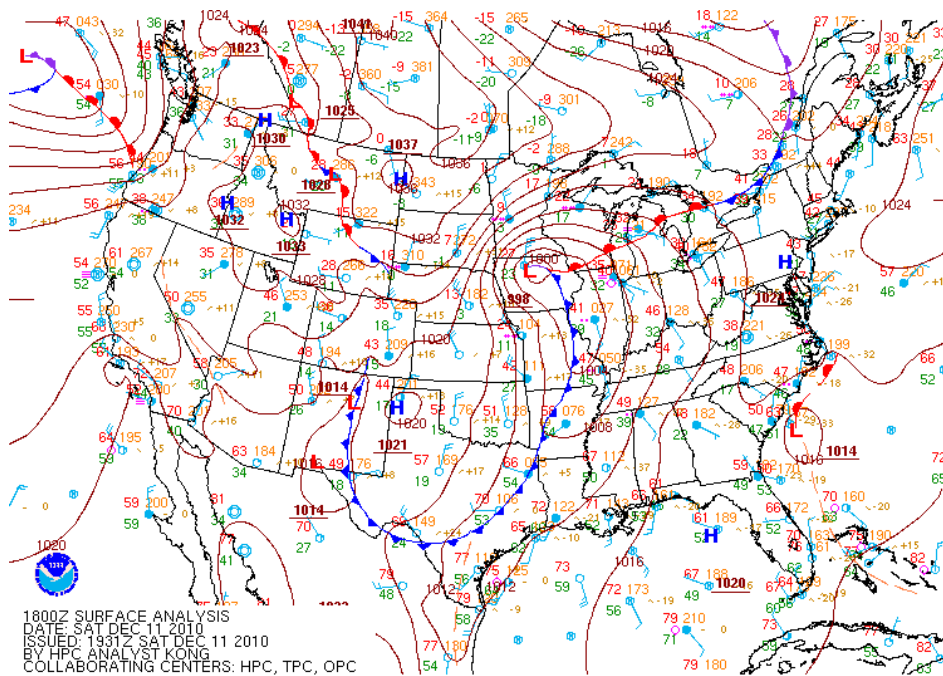
# December 10th-11th, 2010 Significant Blizzard

## Overview

The very active start to the 2010-2011 winter continued, but to another level during the December 10th-11th snow storm. This was a record event for Eau Claire Wisconsin, and one of the biggest on record for the Twin Cities. This storm was a bit unusual in that it was a Pacific type storm system, in which maximum snowfall amounts usually do not top a foot due to limited moisture. But snowfall amounts with this system were in the category of what would be more typical of a storm moving out of the southwest U.S. toward the Mississippi valley. Precipitation began as freezing rain, with some sleet across far southern Minnesota on the evening of the 10th. Snow began reaching the ground on areas to the immediate north of this before midnight, and kept accumulating through the day on the 11th. Accumulations were particularly strong on Saturday morning and early afternoon. The low pressure associated with this system deepened as it moved east across far northern Iowa, which helped to increase the pressure gradient and promote strong surface winds by the 11th. This led to blowing snow and blizzard or near-blizzard conditions at times across a fairly large part of the area. The storm had substantial impacts to people, affecting commerce and transportation as well as infrastructure. Visibility dropped to below a quarter of a mile in snow at the MSP airport during the morning of the 11th, forcing the airport to shut down.



*December 10: 6 pm Surface Weather Map. Low pressure taking shape over far northern NE. Note the surface warm front trying to inch northward across southern Minnesota, with large scale ascent implied just to the north of this*

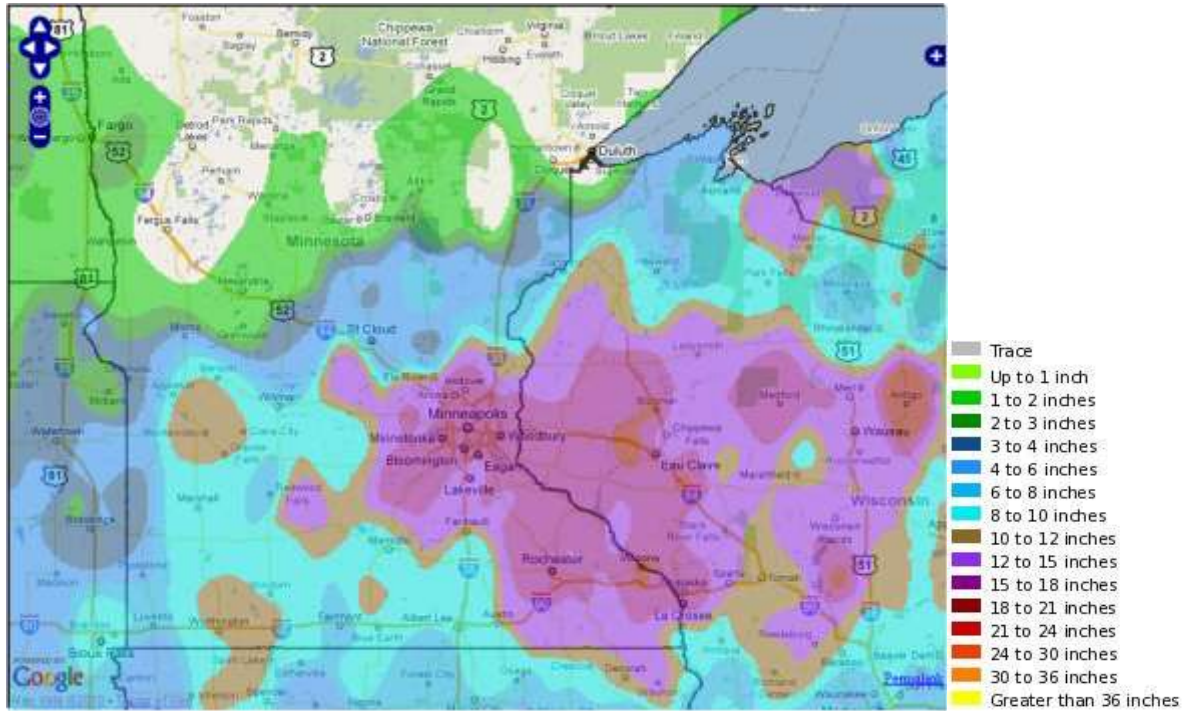


*December 11: 12 pm Surface Weather Map. The surface low has deepened, with a strong Canadian high pressure building in behind. This gradient induced strong winds, which gusted to over 50 mph in southern Minnesota and led to temporary blizzard conditions.*

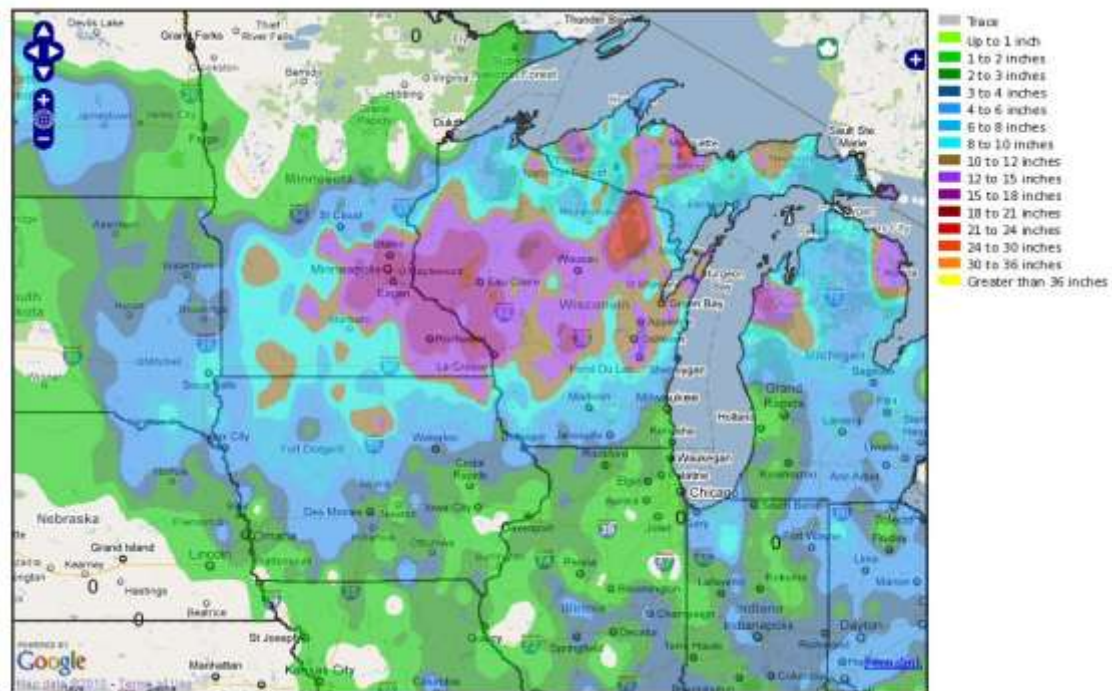
## Climate Facts

- The 22.0 inches ranks as the **highest amount of snow on a calendar day on record for Eau Claire**.
- With 17.1 inches, this snow event was the **fifth largest snow storm on record for the Twin Cities**, and the largest since the "Halloween Snow Storm" of Oct 31-Nov 2, 1991.
- This event ranked as the **largest December snowfall on record for the Twin Cities**, surpassing the 16.5 inches on Dec. 27-28, 1982.
- After this event, the seasonal snowfall of 34.0 inches in Minneapolis ranked as the **3rd highest snowfall through December 13th on record**.

## Snowfall Amounts



## Snowfall Across the Region



## Text Listing of Snowfall Amounts

...SNOWFALL TOTALS FROM THE WINTER STORM EVENT DEC 10-11...

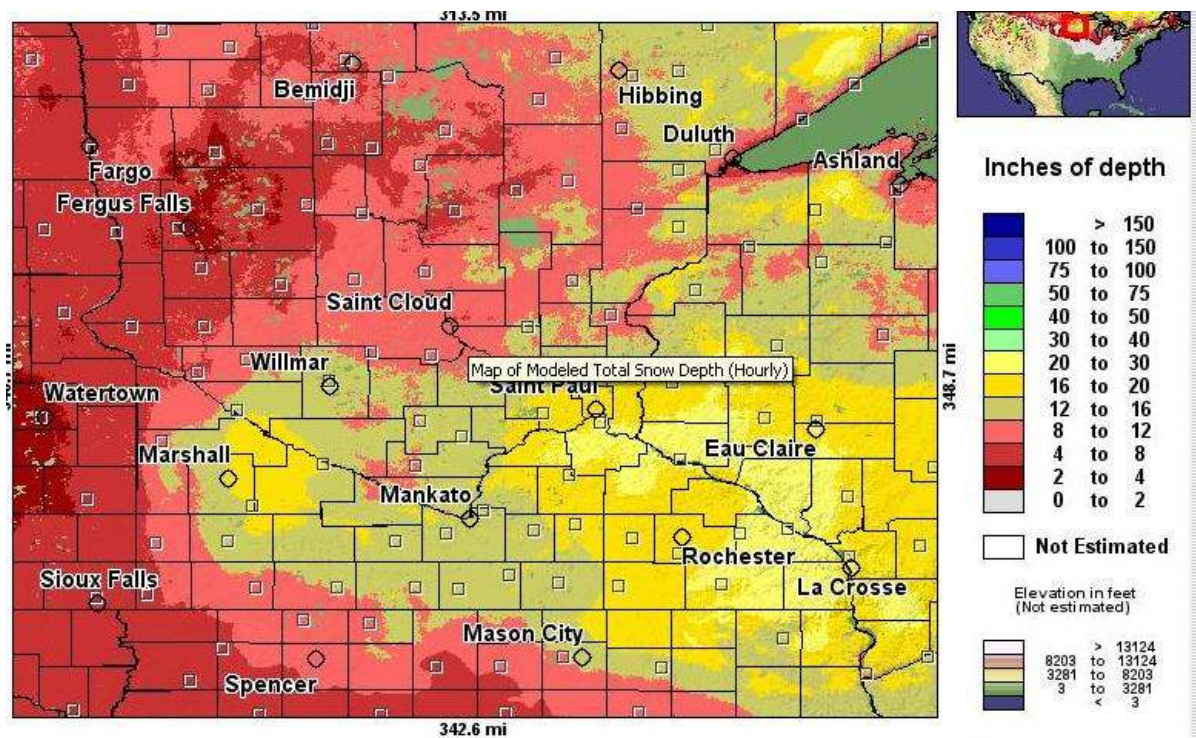
THE TOTALS BELOW ARE SEPARATED INTO SNOW...AND ICE AND SLEET CATEGORIES...THEN BY AMOUNT...AND ARE NOT NECESSARILY THE FINAL AMOUNT FOR EACH LOCATION.

### SNOW REPORTS LISTED BY AMOUNT

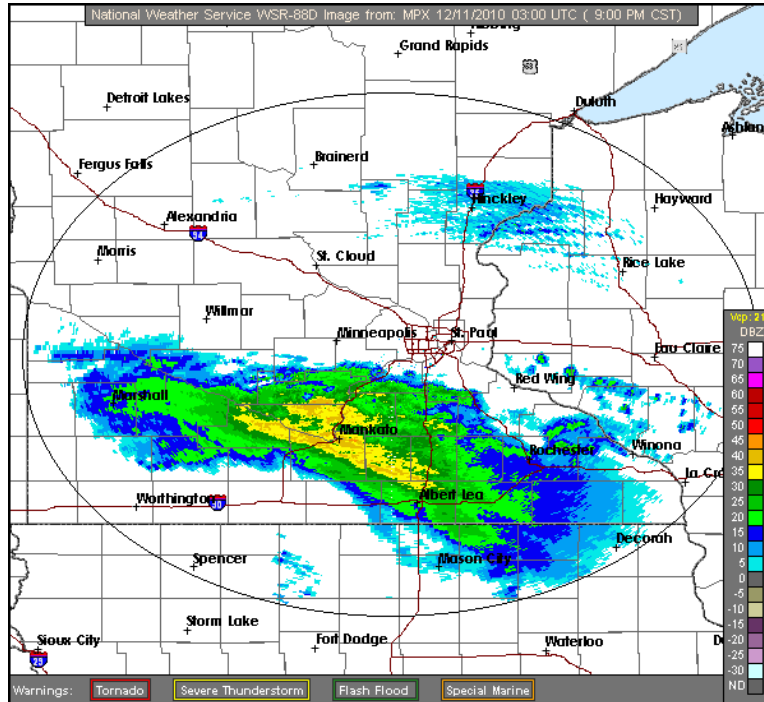
INCHES	LOCATION	ST	COUNTY	TIME
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23.00	5 SE OSCEOLA	WI	POLK	0900 AM
22.00	EAU CLAIRE	WI	EAU CLAIRE	0500 PM
	TELEVISION STATION WQOW.			
21.00	OAKDALE	MN	WASHINGTON	0330 AM
21.00	3 SW EAU CLAIRE	WI	EAU CLAIRE	1200 AM
20.00	RIVER FALLS	WI	PIERCE	0700 PM
20.00	RED WING	MN	GOODHUE	0800 AM
20.00	MAPLEWOOD	MN	RAMSEY	0330 AM
19.00	CLAYTON	WI	POLK	0647 PM
18.50	4 NNE MENOMONIE	WI	DUNN	0945 PM
18.00	MENOMONIE	WI	DUNN	0800 AM
18.00	EAST FARMINGTON	WI	POLK	0630 PM
18.00	3 SSW BURNSVILLE	MN	DAKOTA	0615 PM
18.00	2 W PRIOR LAKE	MN	SCOTT	0900 PM
17.50	3 NW MINNEAPOLIS	MN	HENNEPIN	0100 PM
17.40	LAKEVILLE	MN	DAKOTA	0900 PM
17.20	WOODBURY	MN	WASHINGTON	0900 AM
17.20	1 W CARVER	MN	CARVER	1000 PM
17.10	MINNEAPOLIS	MN	HENNEPIN	0130 AM
	MEASURED AT THE MINNEAPOLIS/ST. PAUL AIRPORT			
17.00	EAU CLAIRE	WI	EAU CLAIRE	1100 AM
17.00	2 N MENOMONIE	WI	DUNN	0630 PM
16.50	SAVAGE	MN	SCOTT	1130 PM
16.30	HASTINGS	MN	DAKOTA	0830 PM
16.10	BLOOMINGTON	MN	HENNEPIN	0600 PM
16.00	RIDGELAND	WI	DUNN	0100 PM
16.00	DURAND	WI	PEPIN	1030 PM
15.50	CHANHASSEN	MN	CARVER	0130 AM
	MEASURED AT THE NWS OFFICE			
15.20	ST LOUIS PARK	MN	HENNEPIN	1030 PM
15.00	CHETEK	WI	BARRON	0930 AM
15.00	1 SSW DELANO	MN	WRIGHT	0630 PM
14.70	WACONIA	MN	CARVER	0745 AM
14.50	3 SSW WHITE BEAR LAKE	MN	RAMSEY	1030 PM
14.20	STANLEY	WI	CHIPPEWA	0930 AM
13.70	LESTER PRAIRIE	MN	MCLEOD	0930 AM
13.50	1 ESE CHASKA	MN	CARVER	0700 PM
13.50	ELK MOUND	WI	DUNN	0700 PM
13.00	STILLWATER	MN	WASHINGTON	1200 PM
13.00	JIM FALLS	WI	CHIPPEWA	0930 AM

12.50	NORTH BRANCH	MN	CHISAGO	1100 AM
12.50	1 ENE CAMBRIDGE	MN	ISANTI	0630 PM
12.00	FARIBAULT	MN	RICE	0900 PM
11.50	ANDOVER	MN	ANOKA	0145 AM
11.00	HAUGEN	WI	BARRON	1130 AM
10.80	CHAMPLIN	MN	HENNEPIN	0830 PM
10.00	ST JAMES	MN	WATONWAN	1230 PM
10.00	CUMBERLAND	WI	BARRON	0730 AM
9.50	NORTH BRANCH	MN	CHISAGO	0430 PM
9.00	VESTA	MN	REDWOOD	1230 PM
8.00	MANKATO	MN	BLUE EARTH	0715 PM
7.00	4S ST CLOUD	MN	STEARNS	0630 PM
6.00	WINTHROP	MN	SIBLEY	0830 PM
5.30	ST CLOUD	MN	STEARNS	1200 AM
5.00	BROWNTON	MN	MCLEOD	0818 AM

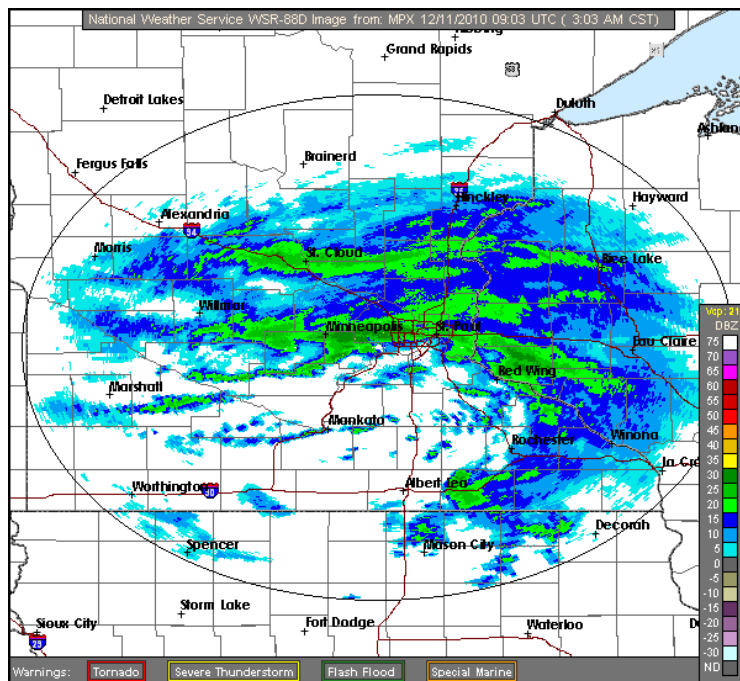
### Snow Depth as of December 12



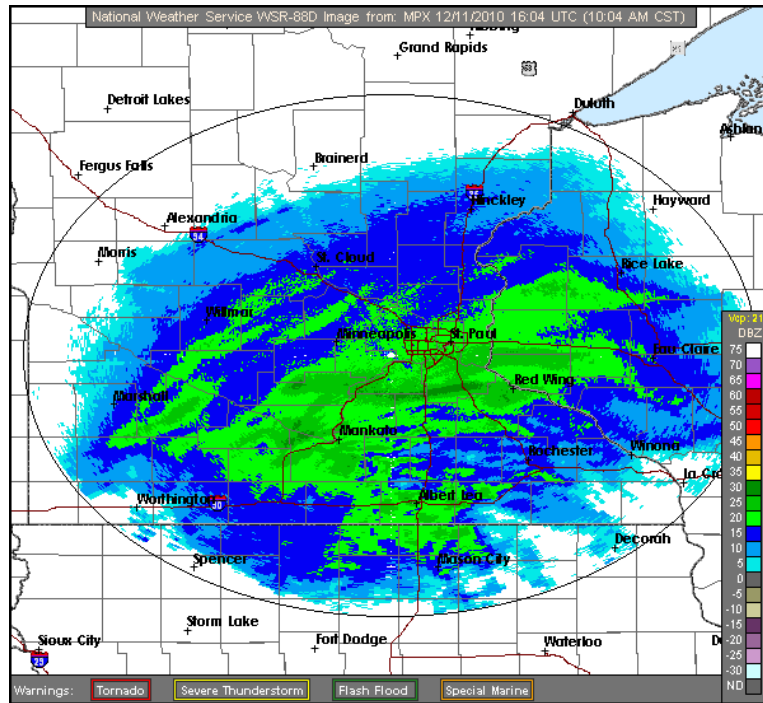
## Radar



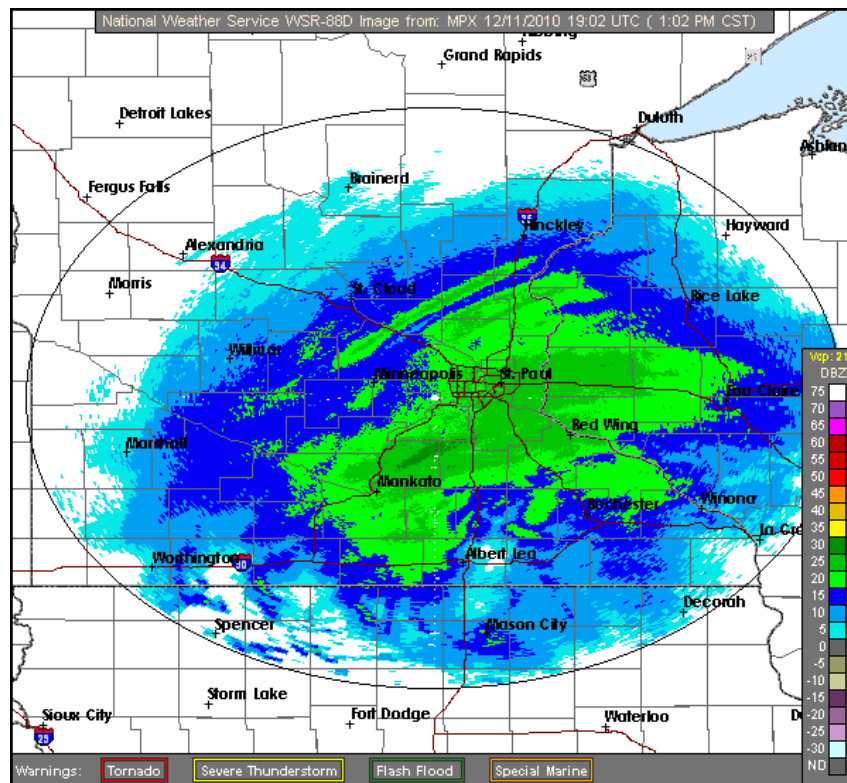
*KMPX Radar at 9 PM CST, December 10. A combination of freezing rain, sleet, and snow was being observed across southern MN. The high dBZ indicates this transitional precipitation. As this would shift north, it would turn to all snow, heavy at times.*



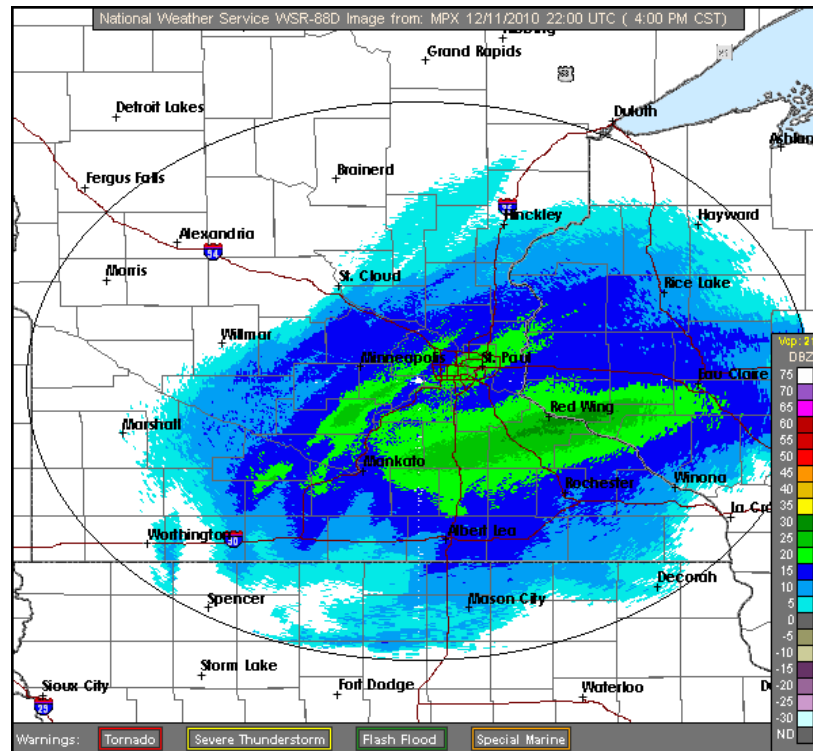
*KMPX Radar at 3 AM CST, December 11. A west to east band of moderate to heavy snow continues over the Twin Cities, along with one to the north. A brief respite is seen to the south advancing northward, but that would only last through daybreak.*



*KMPX Radar at 10 AM CST, December 11. The snow was near its heaviest in many places beginning during the mid-morning on Saturday, including over the Twin Cities. This radar image depicts the broad intense band over the area*



*KMPX Radar at 1 PM CST, December 11. Little shift in the band has occurred, indicating very heavy snowfall amounts. The dBZ near Eau Claire may not seem that high, but given the distance from the radar and precipitation type being snow, this was reflective of moderate to heavy snowfall over that area.*



*KMPX Radar at 4 PM CST, December 11. The snow bands begin to evolve southeast. Still moderate to heavy snow is occurring over Eau Claire, with massive accumulations near two feet reached.*